UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,915	09/24/2003	Luiz Marcelo Paternostro	CA920020063US1	8477

61136   7590   12/12/2008
HAMILTON & TERRILE, LLP
IBM RSW
P.O. BOX 203518
AUSTIN, TX 78720

EXAMINER
MITCHELL, JASON D

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
12/12/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

tmunoz@hamiltonterrile.com

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *15 October 2008*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some *   c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This action is in response to a request for continued examination filed on 10/15/08.

Claims 1-20 are pending in this application.

Response to Arguments

Applicant's arguments filed 10/15/08 have been fully considered but they are not persuasive.

In the last par. on pg. 6 the applicants state:

> Applicants accept Examiner's assertion that the "test cases" of Sivakumar are organized in a hierarchy tree. However, Applicant's respectfully disagree with Examiner's assertion that the "unit in a tree hierarchy" is equivalent to the "hierarchical position of each unit test" claimed by Applicant. Skilled practitioners of the art would consider the cited reference as merely describing a "test case" that happens to reside in a tree hierarchy and not equivalent to providing "a hierarchical position of each said unit tests within said hierarchical groupings."

The examiner respectfully disagrees. First it is noted that the applicants arguments only state that "Skilled practitioners" would not agree with the rejection but do not provide any indication why this would be the case or explicitly point out any perceived distinction over the prior art. Thus the applicants' arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Further, the claim recites "tracking … a hierarchical position of each of said unit tests within said hierarchical groupings." Sivakumar discloses that "contextual

information such as … information about the parent test class and child test classes …

about these test cases … are available" (col. 4, lines 33-41). It is the examiners position

that those of ordinary skill in the art would understand this to indicate that Sivakumar's

system maintains data indicating (i.e. keeps track of) the hierarchical position (i.e.

parent and children) of the unit test. Accordingly those of ordinary skill would have

understood Sivakumar's disclosure to anticipate the broadly claimed "tracking … a

hierarchical position".

In the first par. on pg. 7, the applicants state:

> Regarding the rejection of claims 2, 13, 16 and 19, Examiner asserts that
> Sivakumar discloses the step of "outputting the hierarchical position of each of said
> unit tests in association with the corresponding results." Upon careful review of
> Sivakumar, no references were found to "outputting the hierarchical position of each
> of said unit tests in association with the corresponding results." While Applicant's
> concur with Examiner that Sivakumar includes a reference to "generate output
> information.., applied to one or more output devices" [Column 10 Lines 66-67], the
> cited reference fails to teach "outputting the hierarchical position of each of said unit
> tests."

The examiner respectfully disagrees. First it is again noted that the applicants'

arguments fail to comply with 37 CFR 1.111(b) because they amount to a general

allegation that the claims define a patentable invention without specifically pointing out

how the language of the claims patentably distinguishes them from the references.

Further Sivakumar's fig. 4 shows a GUI interface displaying the results of the

testing (see e.g. col. 2, lines 27-39). The indentation of the various test items indicate a

position in a hierarchy. Accordingly Sivakumar discloses "outputting the hierarchical

position of each of said unit tests".

In the par. bridging pp. 7 and 8 the applicants state:

> Applicants concur with Examiner that "contextual information" referenced by the first underscored passage provides "information about the parent test class and child test classes and cases at any level in the hierarchy". However, as evidenced by the second underscored passage [referring to a section of col. 4, lines 33-41], Sivakumar does not capture the position of a unit test (the "test case") within a test hierarchy. Instead, the "contextual information" of Sivakumar is only "available in the form of environment variables and API commands defined by the test management system." Those of skill in the art would not consider the two to be equivalent. Specifically, providing information related to a unit test (the "test case") within a test hierarchy "in the form of environment variables and API commands" is not the same as providing the position of the unit test within the test hierarchy. More specifically, skilled practitioners of the art would further posit that it would not be obvious that "finer control of the execution of the test and its rules based on the position of the test in the hierarchy," would provide the unit test's position within the test hierarchy. Instead, the "contextual information" would only provide "finer control" within the context of the previously referenced "environment variables and API commands defined by the test management system." Accordingly, it would be difficult to provide a convincing argument contrary to Applicant's assertion that "the cited portion ... does not disclose capturing the 'hierarchical position' of each unit test within a grouping."

The examiner respectfully disagrees. First it is noted that the claim in question does not recite "capturing" hierarchical data, thus any discussion regarding what those of skill in the art might or might not consider equivalent to capturing hierarchical data is immaterial. As discussed above Sivakumar discloses the claimed "tracking" of hierarchical data and thus meets the claim language. Further "contextual information such as … information about the parent test class and child test classes" (col. 4, lines 33-41) indicates the position of a test case in a hierarchy. Because the claims only broadly recite "tracking" this data the means used by Sivakumar (i.e. environment variables and API commands) do not represent a patentable distinction.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-6, 12-13, 15-16 and 18-19 are rejected under 35 U.S.C. 102(b) as

being anticipated by US 6,031,990 to Sivakumar et al. (Sivakumar).

Regarding Claims 1, 12, 15 and 18: Sivakumar discloses a method for tracking unit

tests of a software application, said method comprising the steps of:

(a) conducting unit tests on a software application, said unit tests ordered under

hierarchical groupings (col. 3, lines 8-9 "A test hierarchy"); and

(b) tracking said unit tests so as to capture a result of each of said unit tests and

a hierarchical position of each of said unit tests within said hierarchical groupings (col.

2, lines 58-61 "A "test case" ... records the result").

Regarding Claims 2, 13, 16 and 19: The rejection of claims 1, 12, 15 and 18 are

incorporated respectively; further; Sivakumar discloses the step of:

(c) outputting the hierarchical position of each of said units test in association

with the corresponding result (Fig. 4).

Regarding Claim 4: The rejection of claim 1 is incorporated; further Sivakumar

discloses said unit tests are grouped within a test suite, said test suite comprising a

highest order grouping of said unit tests (Fig. 1, Root node 10), said test suite grouping

containing at least one test case, each test case comprising a sub-grouping of said test

suite (Fig. 1, Test Class 12).

Regarding Claim 5: The rejection of claim 4 is incorporated; further Sivakumar

discloses a sub-set of said unit tests is grouped within one test case (Fig. 1, Test Case

14).

Regarding Claim 6: The rejection of claim 5 is incorporated; further Sivakumar

discloses one or more other test cases are grouped within said one test case, each of

said other test cases comprising a sub-grouping of said one test case (col. 2, lines 63-

67 "A test class is an abstract collection of ... one or more other test classes").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 7-8, 14, 17 and 20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US 6,031,990 to Sivakumar et al. (Sivakumar) in view of US

5,671,351 to Wild et al. (Wild).

Regarding Claims 3, 14, 17 and 20: The rejection of claims 1, 13, 16 and 19 are

incorporated respectively; further; Sivakumar does not disclose at lest one of said unit

tests is iteratively conducted multiple times.

Wild teaches at least one of said unit tests is iteratively conducted multiple times (col. 5,

lines 65-67 "Iteration Count … specifies the number of times the selected test cases will

be executed"), and said method further comprises the step of:

> (d) each time one of said unit tests is conducted, associating an iteration ordinal
>
> indication with the result (Fig. 9, 9h).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of Sivakumar and Wild to associate an iteration

ordinal indication (Wild Fig. 9, 9h) with the result of each unit test (Sivakumar Fig. 1,

Test Case 14) because "one test might otherwise interfere with another test or depend

on the success or failure of another test" and "Each test in the hierarchy has an

execution sequence number associated with it" (Sivakumar col. 3, lines 28-32).

Regarding Claim 7: The rejection of claim 6 is incorporated further Sivakumar does not disclose at least one of said other test cases is iteratively conducted.

Wild teaches at least one of said other test cases is iteratively conducted (col. 5, lines 65-67 "Iteration Count … specifies the number of times the selected test cases will be executed").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sivakumar and Wild to associate an iteration ordinal indication (Wild Fig. 9, 9h) with the result of each unit test (Sivakumar Fig. 1, Test Case 14) because "one test might otherwise interfere with another test or depend on the success or failure of another test" and "Each test in the hierarchy has an execution sequence number associated with it" (Sivakumar col. 3, lines 28-32)

Regarding Claim 8: The rejection of claim 3 is incorporated further Sivakumar discloses said associating step further comprises instantiating at least one of a test case class (Fig. 1, Test Class 12) and a test suite class (Fig. 1, Root node 10), said test case class and said test suite class being associated with methods for, in respect of a given unit test, getting a parent of a sub-grouping to which said given unit test belongs (col. 4, lines 33-41 "contextual information such as the hierarchy information … are available to the test").

Further, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to include Wild's iteration ordinal (Fig. 9, 9h) as part of Sivakumar's

"contextual information" (col. 4, lines 33-41)

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

6,031,990 to Sivakumar et al. (Sivakumar) in view of US 5,671,351 to Wild et al.

(Wild) in view of the JUnit 3.7 (JUnit).

Regarding Claim 9: The rejection of claim 8 is incorporated; further Sivakumar does

not disclose, wherein said test case class extends a test case class and said test suite

class extends a unit test suite class.

JUnit teaches extending a test case class and a test suite class (see e.g. the definition

of Class TestSuite "public class MathTest extends TestCase").

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the Sivakumar-Wild combination with the teachings of JUnit

because "JUnit is a simple framework to write repeatable tests" (JUnit 3.7 pg. 1 par. 1)

Regarding Claim 10: The rejection of claim 9 is incorporated; further Sivakumar

discloses said unit tests are conducted by an instantiation of a runner within an

instantiation of a framework (col. 1, lines 64-67 "executing a run command of the test

case"), said test case class and said test suite class being part of said framework (col.

1, lines 19-23 "a software infrastructure").

Regarding Claim 11: The rejection of claim 10 is incorporated; further It would have

been obvious to one of ordinary skill in the art at the time the invention was made to

make the system taught by the Sivakumar-Wild combination compliant with JUnit

because JUnit is a simple framework to write repeatable tests" (JUnit 3.7 pg. 1 par. 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JASON MITCHELL whose telephone number is

(571)272-3728. The examiner can normally be reached on Monday-Thursday and

alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Examiner, Art Unit 2193